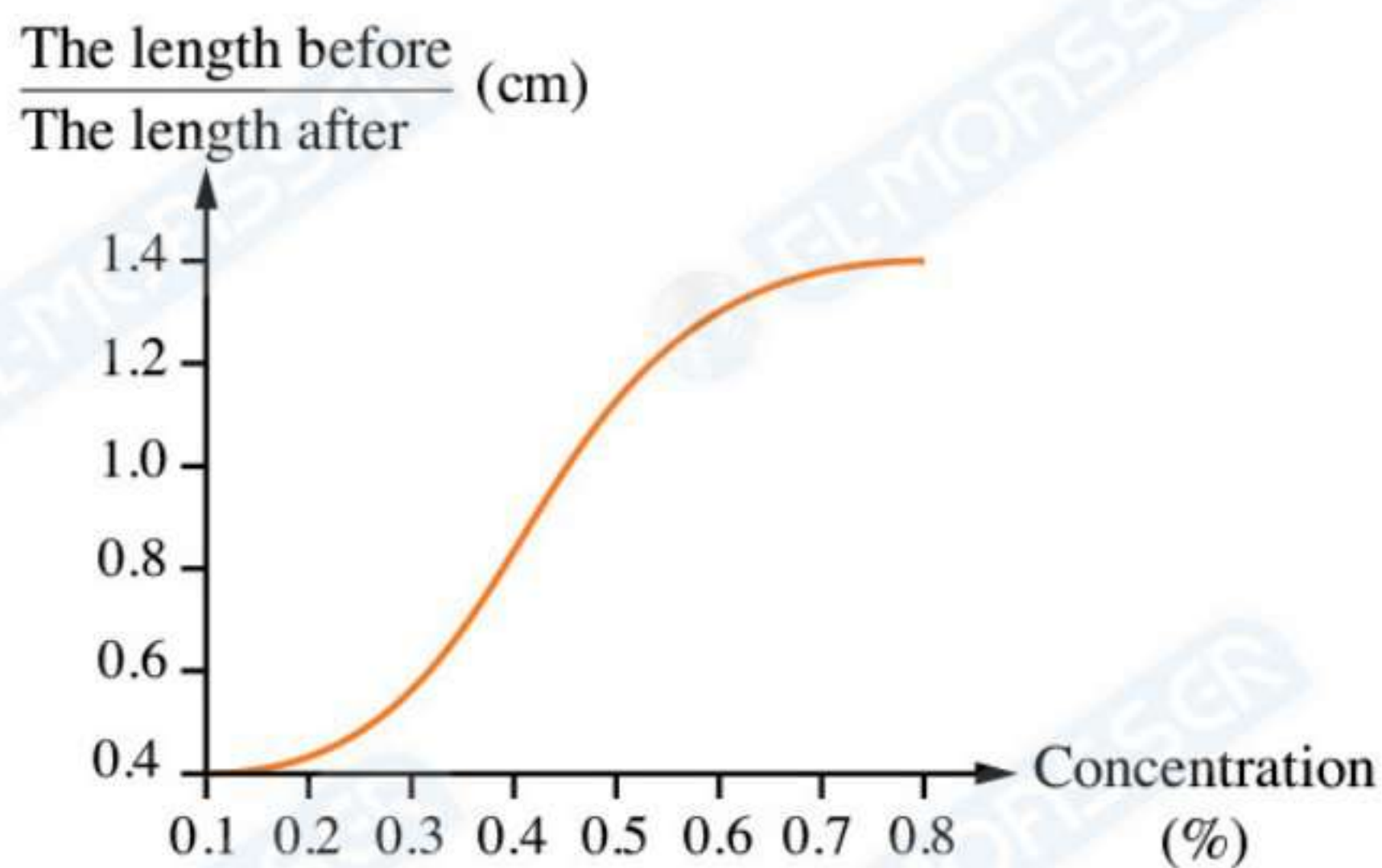


Test

1

- 1 Potato slices with equal lengths were put in serial concentrations of sucrose sugar for 30 minutes, their lengths were measured before and after treating, the following graph shows the ratio between the length before and after treating and the sugar solution concentration. Which of the following shows the change in the length of the potato slices and the pressure of fullness with water, with increasing the concentration of sugar solution ?

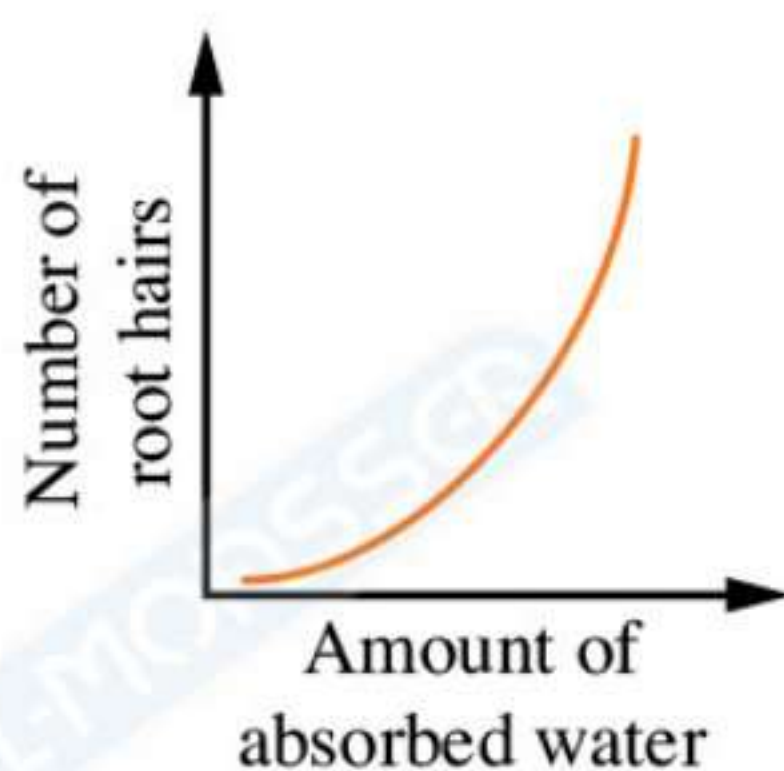


	The change in length	Pressure of fullness with H ₂ O
(a)	Increases	Increases
(b)	Increases	Decreases
(c)	Decreases	Decreases
(d)	Decreases	Increases

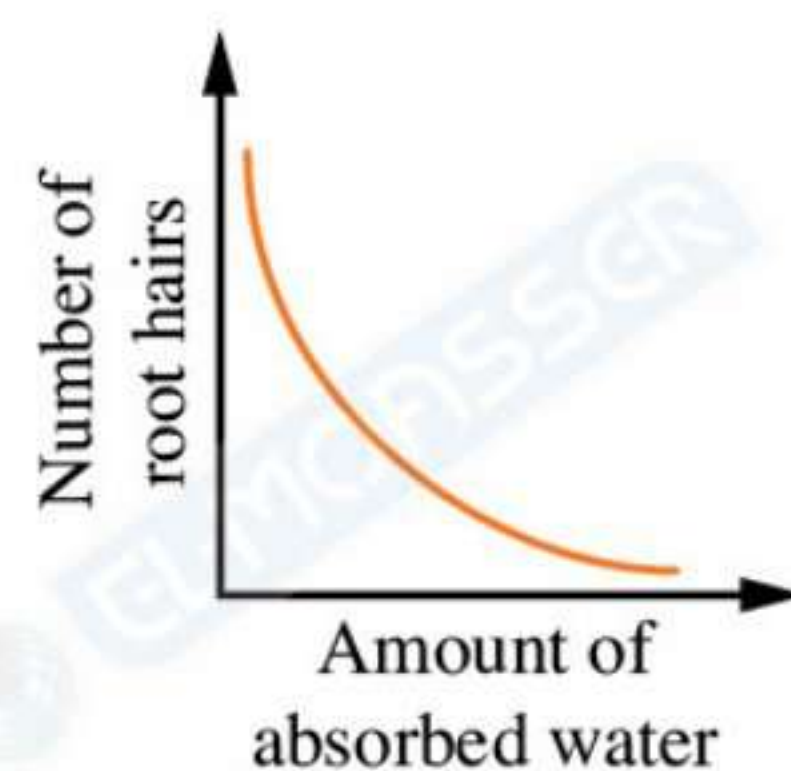
- 2 What happens during the passage of the food bolus in the oesophagus ?

- (a) The proteins digestion starts.
- (b) The fats digestion starts.
- (c) The carbohydrates digestion continues.
- (d) The digestion process stops.

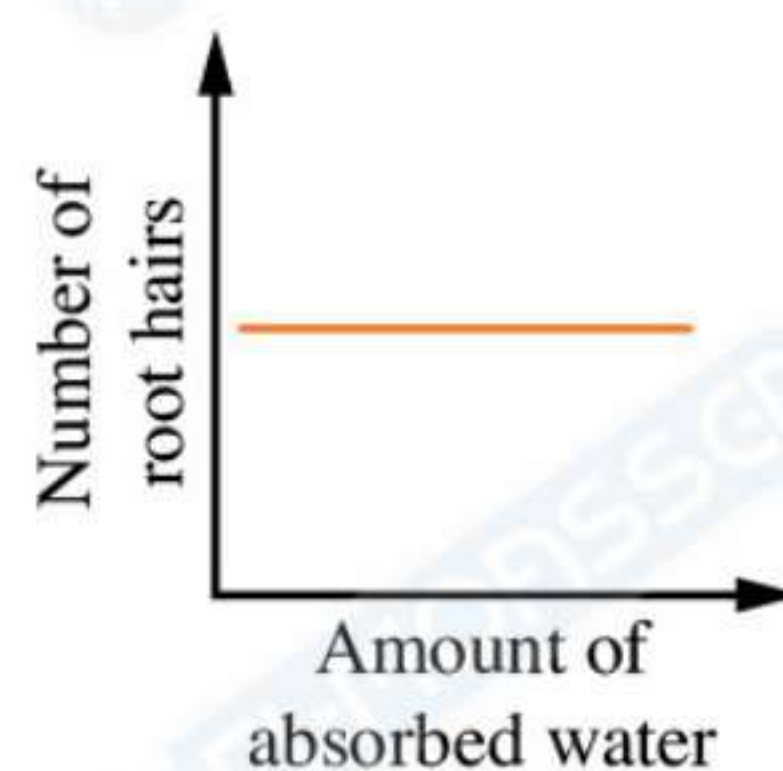
- 3 Which of the following graphs represents the relation between the number of root hairs and the amount of absorbed water ?



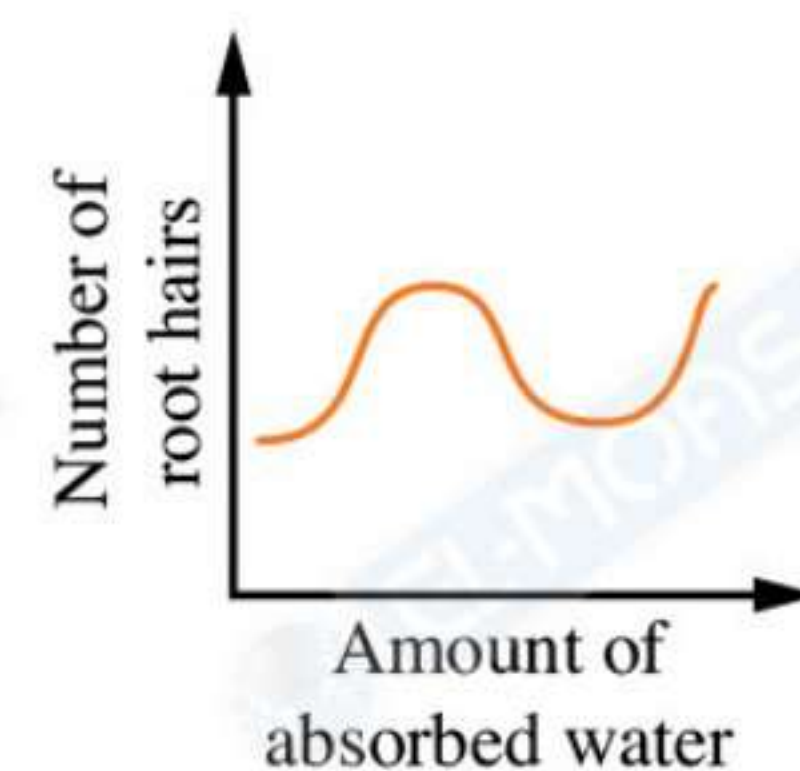
(a)



(b)



(c)



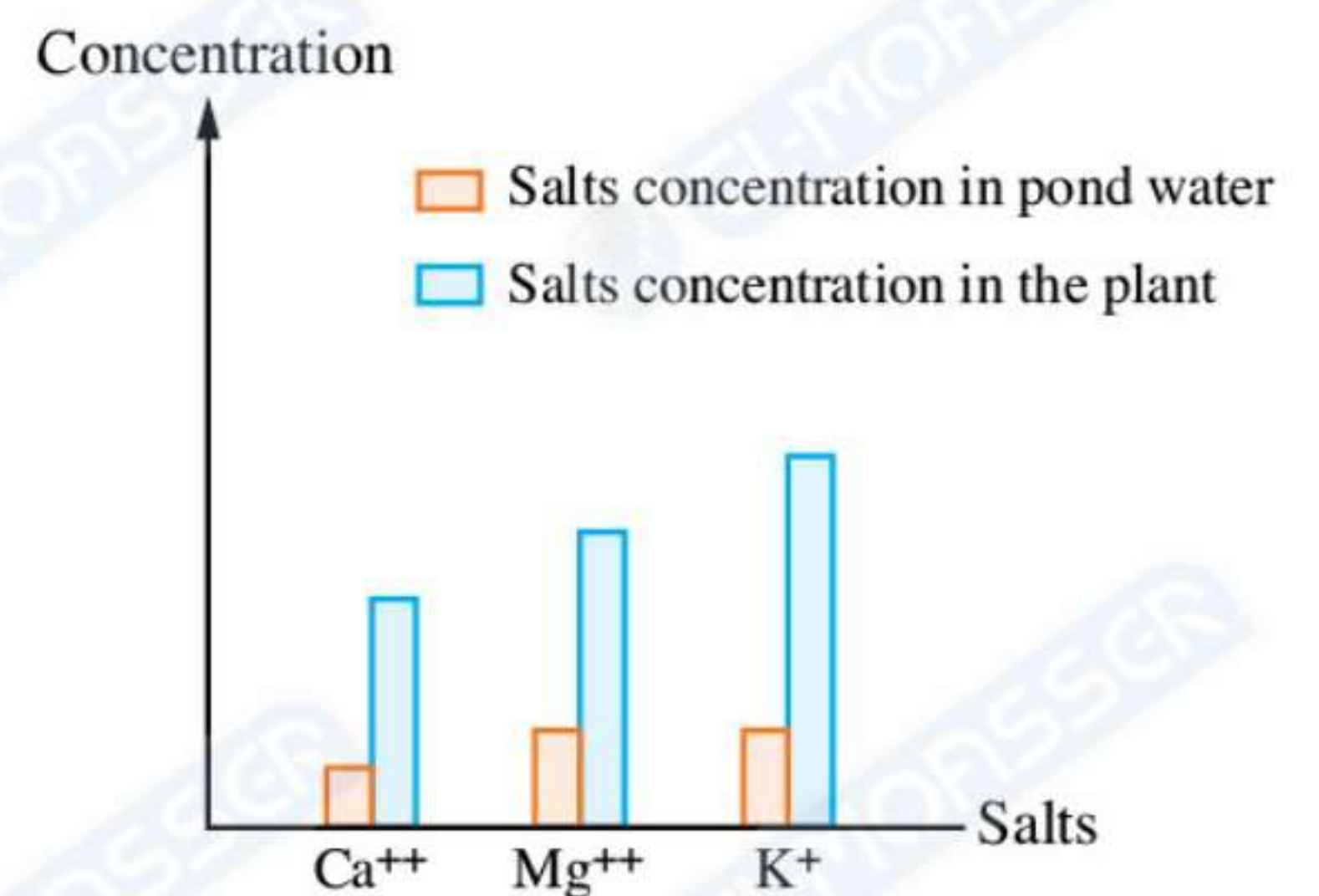
(d)

- 4 How far are these statements "the green plant is autotrophic", "it absorbs water and glucose from the soil" correct ?

- (a) The two statements are correct and related.
- (b) The two statements are correct and not related.
- (c) The first statement is correct and the second statement is wrong.
- (d) The first statement is wrong and the second statement is correct.

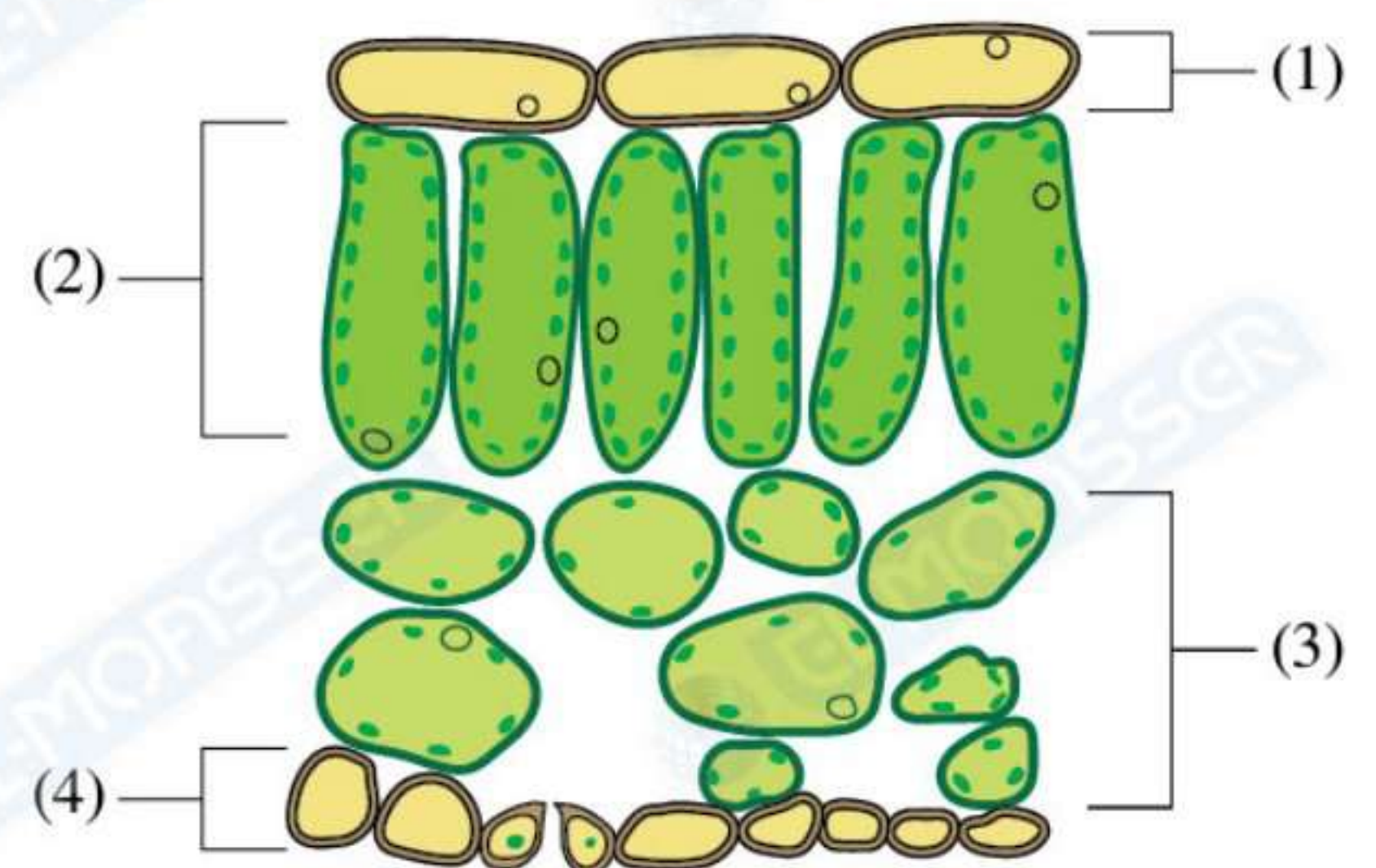
- 5 Which of the following may occur if suberin precipitated on the double membrane of chloroplasts ?
- Difficulty in the light passage.
 - Chlorophyll won't be formed.
 - High speed of O_2 formation.
 - Water passes easily.
- 6 Which of the following statements describes the enzymes which are present in the raw fruits and vegetables ?
- The enzymes don't work inside the plant.
 - The enzymes change their substrates inside the human body.
 - The enzymes that are present in them become inactive by heating and cooking.
 - The enzymes increase the activation energy.

- 7 From the opposite graph, by which of the following mechanisms the plant absorbs salts ?



- Diffusion.
- Permeability.
- Active transport and permeability.
- Cation or anion exchange.

- 8 The opposite figure illustrates a part of the transverse section in a leaf of a plant, which of the following tissues is the most efficient to perform the photosynthesis process ?



- (1).
- (2).
- (3).
- (4).

- 9 What is the similarity between the green plants and purple-sulphur bacteria ?

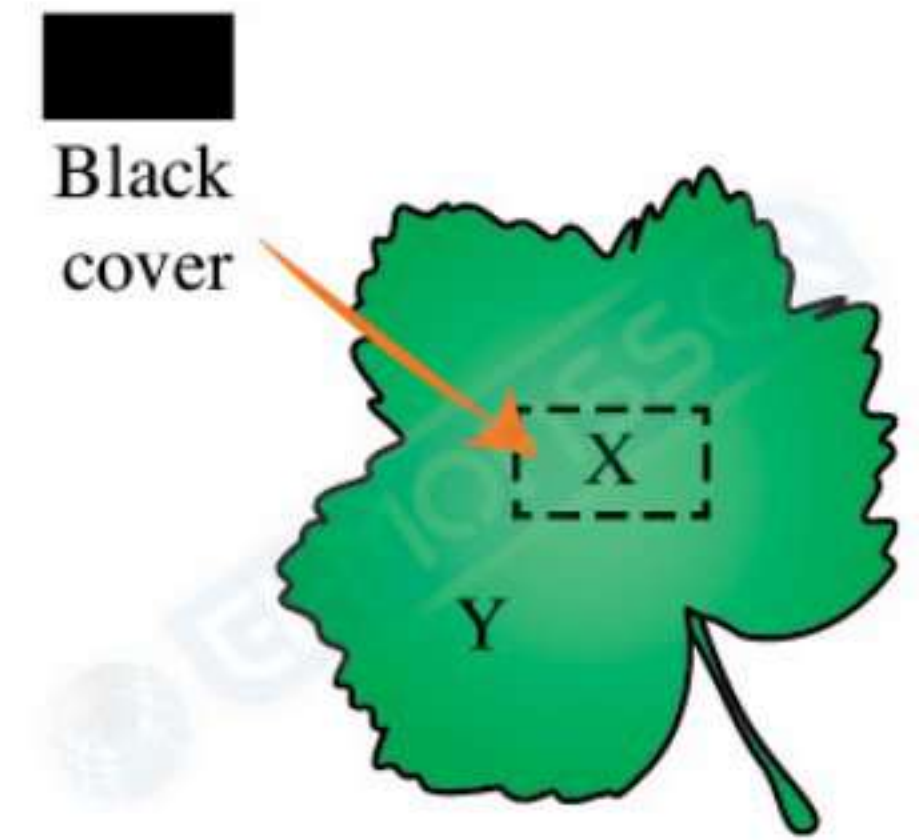
- The type of chlorophyll in both of them.
- The source of hydrogen required for CO_2 fixation in both of them.
- The dark reactions in both of them.
- The secondary products of photosynthesis process in both of them.

10 Explain : ptyalin enzyme is secreted in an active form, while pepsin enzyme is secreted in an inactive form.

.....

.....

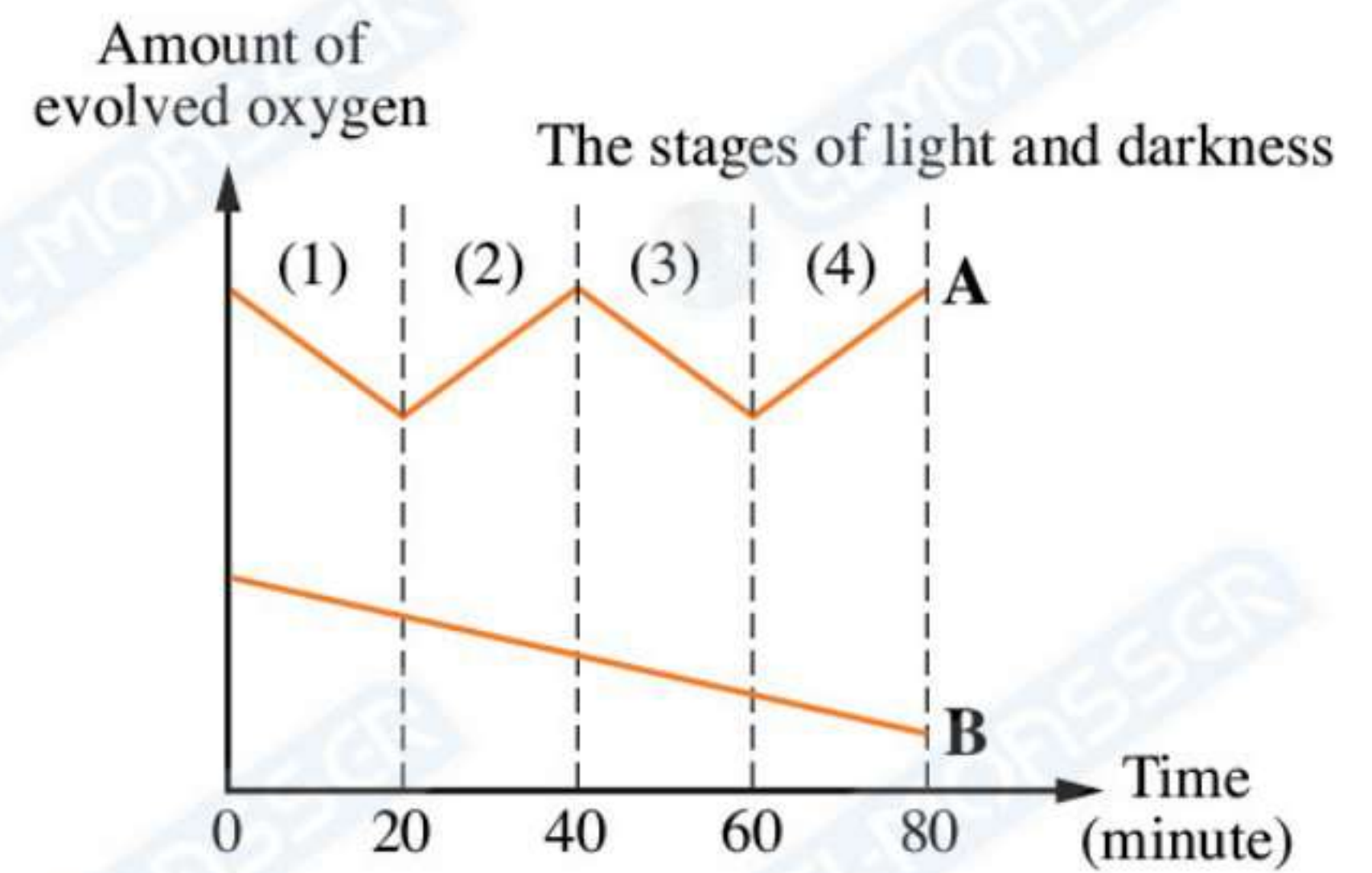
11 In the opposite figure, a black cover was put on part (X), then the leaf was exposed to light for several hours. **Conclude** what happens if some drops of iodine solution are put on parts (X) and (Y), after removing the black cover.



.....

.....

12 An aquatic plant was put in a medium containing water $H_2^{18}O$ and mineral salts, where water contains dissolved oxygen ($^{16}O_2$) and also a source of carbon dioxide ($C^{16}O_2$), then the plant exposed to light and darkness in a successive manner.



From the opposite graph :

(a) Which of the stages from (1) : (4) represents the darkness ?

.....

(b) Which curve represents oxygen (^{16}O) ?

.....

Test

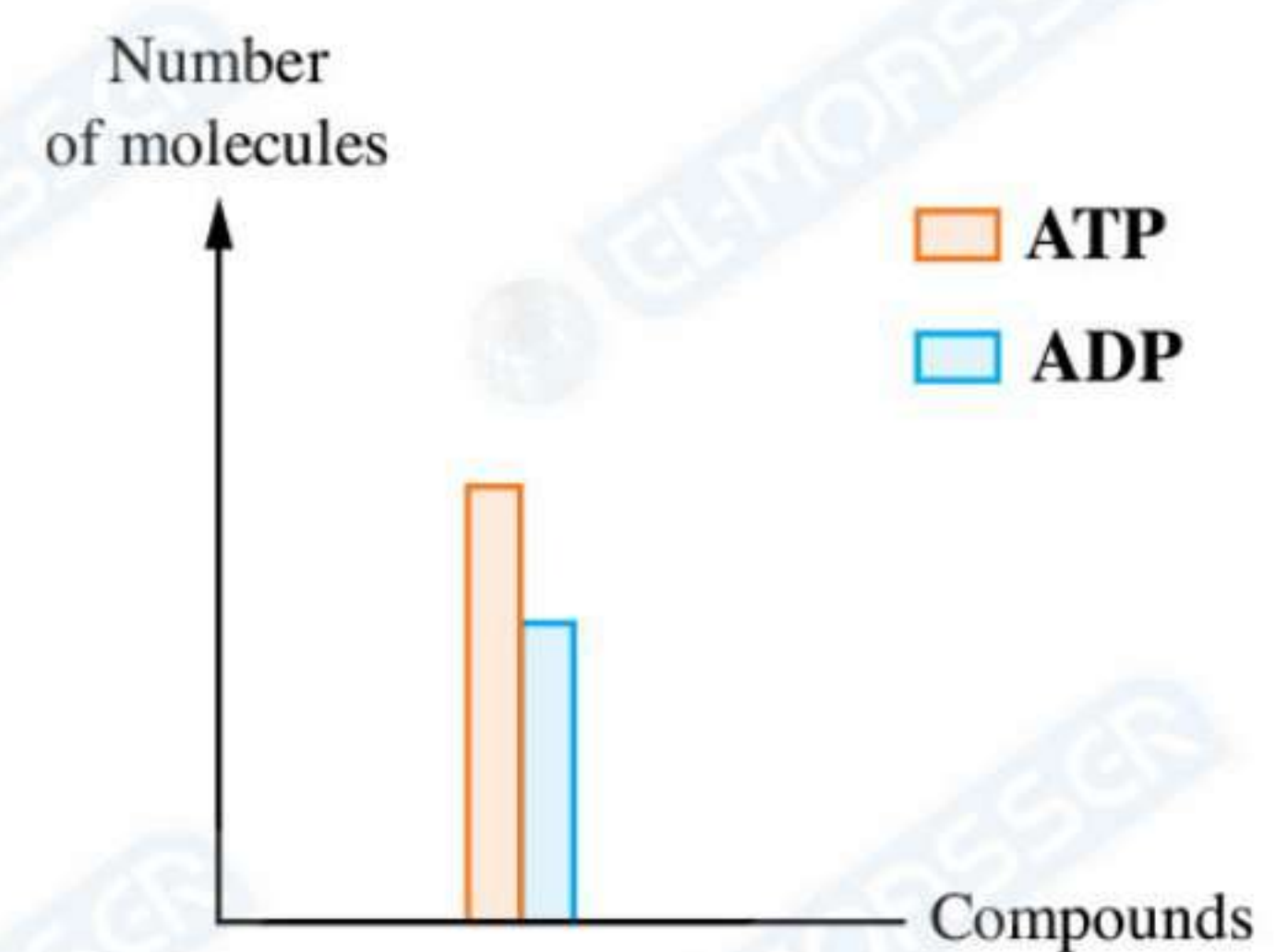
2

1 In an experiment, a student put four potato slices (the length of each slice was 5 cm) in salt solutions with different concentrations, then he recorded the results in the following table, depending on the recorded results, which of the following expresses the solution that has the highest concentration ?

Salt solution	The length of the slice after 30 minutes
(a)	4.5
(b)	4.8
(c)	5
(d)	5.3

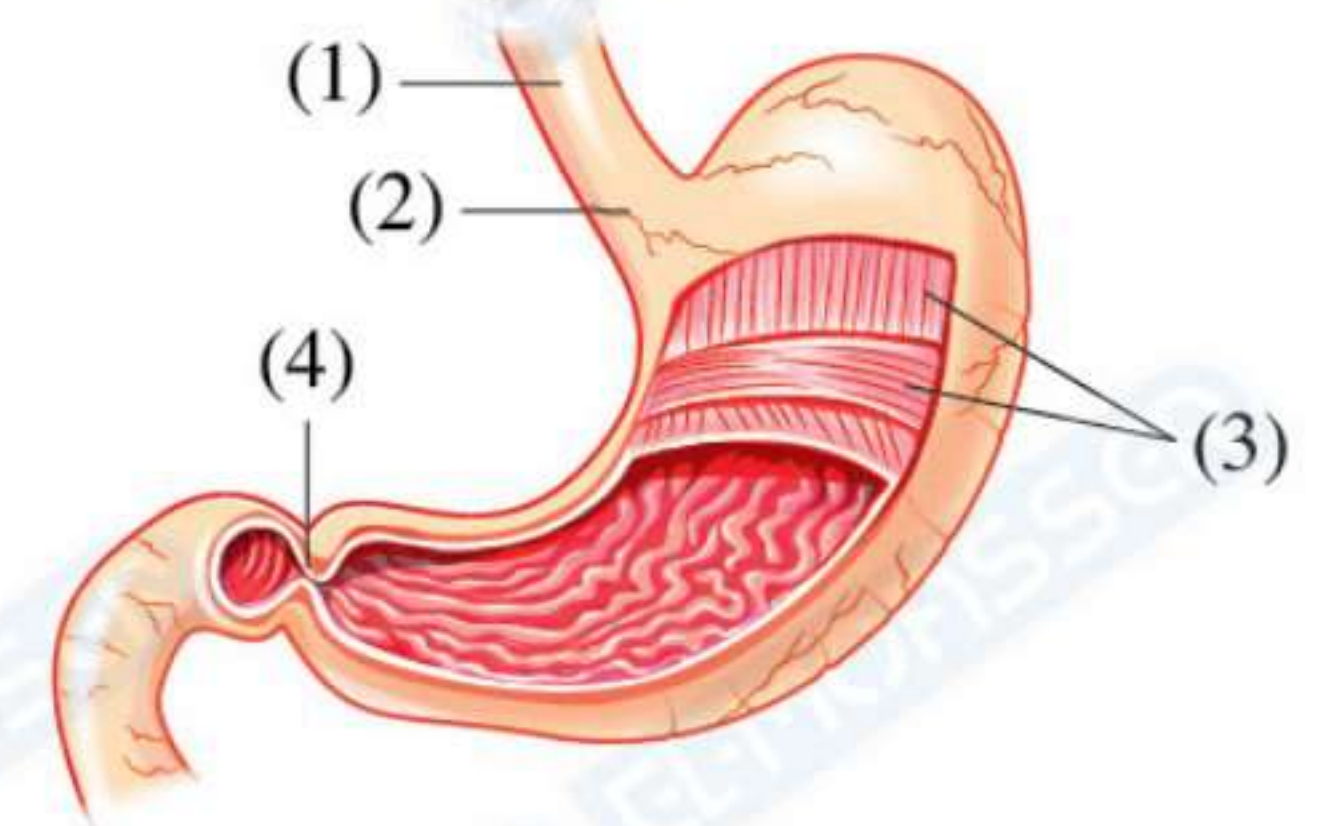
2 The opposite graph shows some of the photosynthesis process products, which of the following occurs during this stage ?

- (a) The formation of H_2O molecules.
- (b) The oxidation of $NADPH_2$
- (c) The release of O_2
- (d) The reduction of CO_2



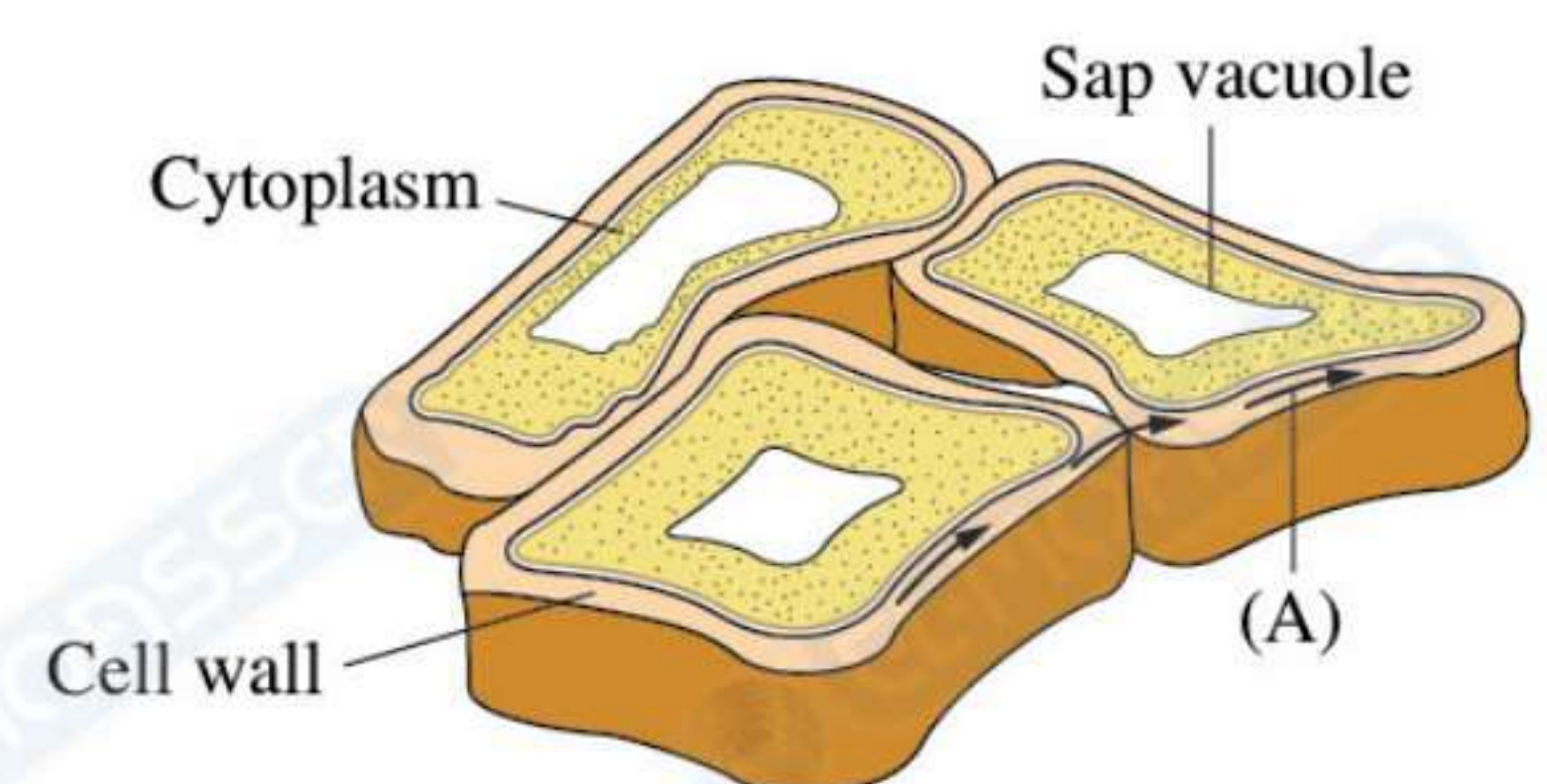
3 Some patients who have digestion complications suffer from the "Gastro-oesophageal reflux" which causes severe inflammation in the oesophagus, in which part in the opposite figure is the disturbance occurred to cause this ?

- (a) (1).
- (b) (2).
- (c) (3).
- (d) (4).



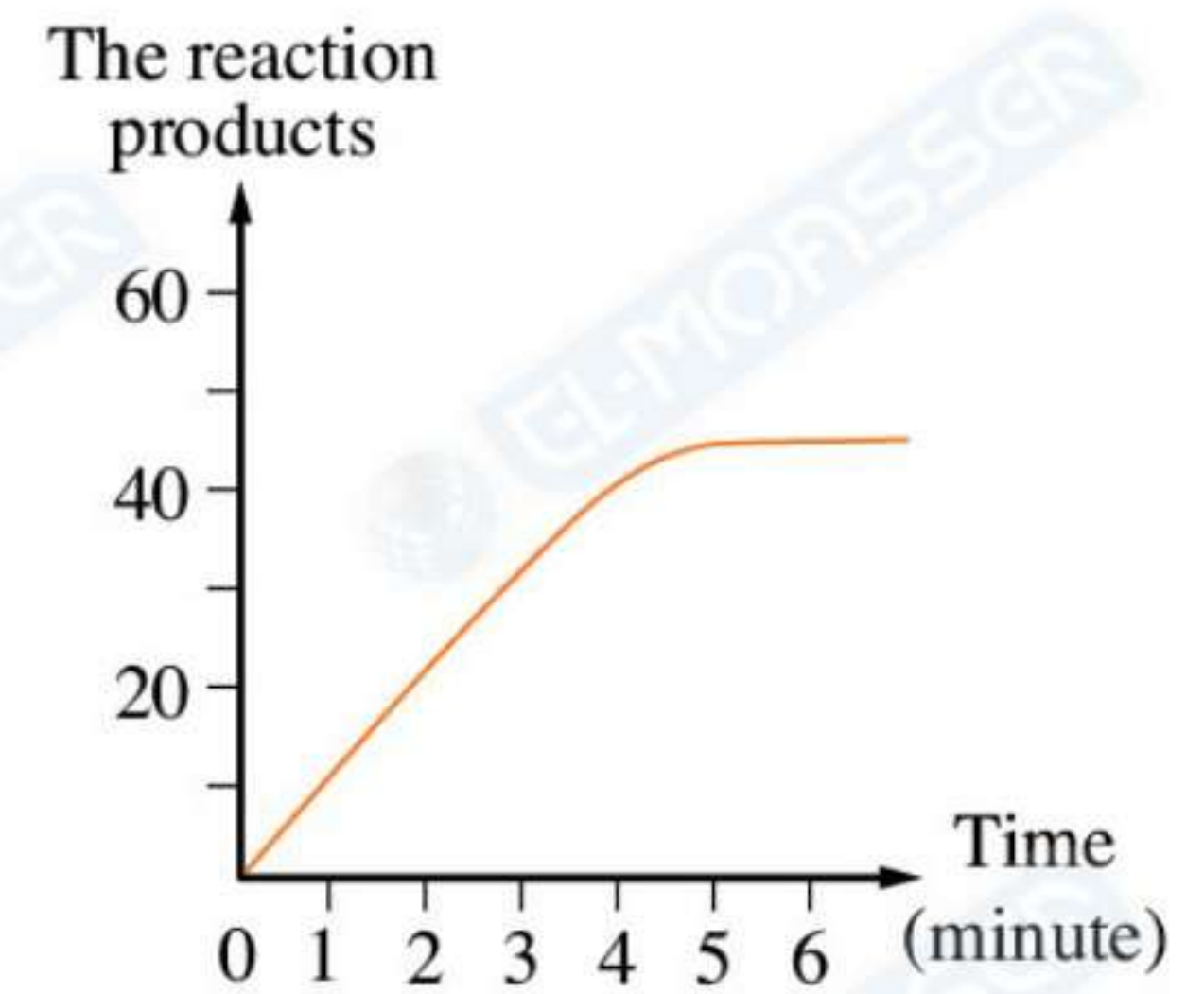
4 From the opposite figure, what is the phenomenon by which substance (A) transfers ?

- (a) Osmosis.
- (b) Imbibition.
- (c) Diffusion.
- (d) Active transport.

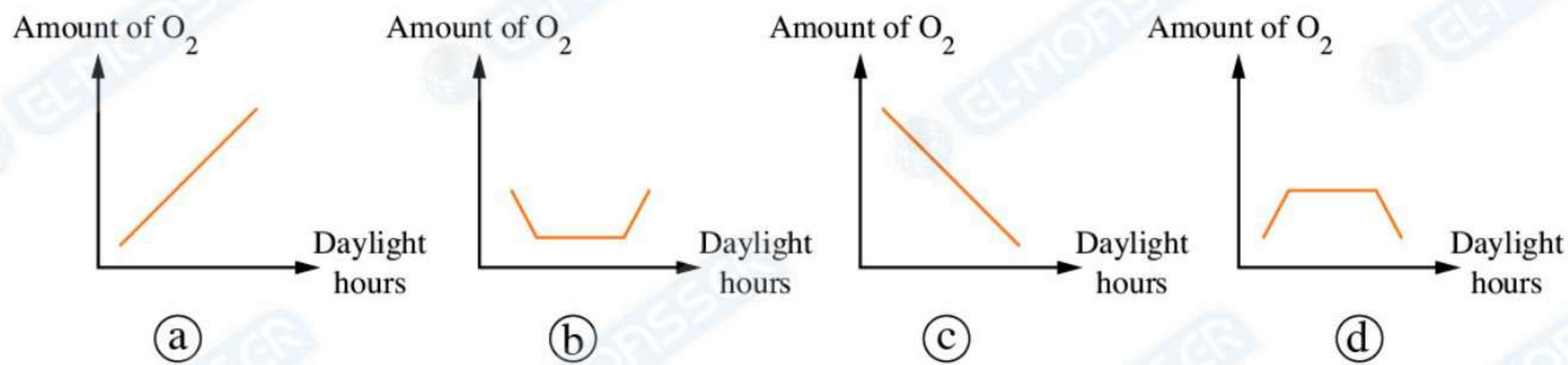


5 The opposite graph illustrates the activity of amylase enzyme, what can we conclude from this graph ?

- (a) The concentration of starch in the second minute is lower than that in the fourth minute.
- (b) The concentration of glucose in the fourth minute is higher than that in the first minute.
- (c) The concentration of maltose in the second minute is higher than that in the fourth minute.
- (d) The concentration of maltose in the fourth minute is higher than the concentration of starch.



6 Which of the following graphs describes the evolved O_2 amount from a plant during the daylight hours ?

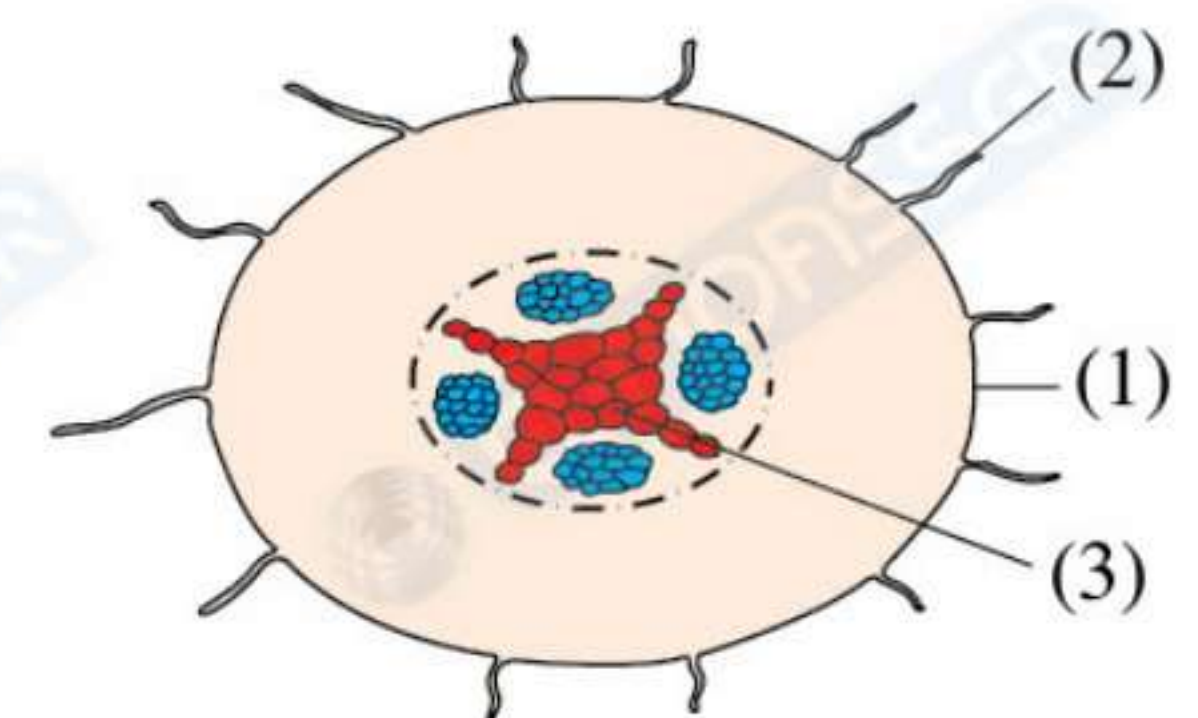


7 Which of the following elements its absence doesn't affect the photosynthesis process ?

- (a) Iron.
- (b) Phosphorus.
- (c) Magnesium.
- (d) Calcium.

8 The opposite figure illustrates a transverse section in the plant root, which of the following parts absorb(s) water and salts ions mainly ?

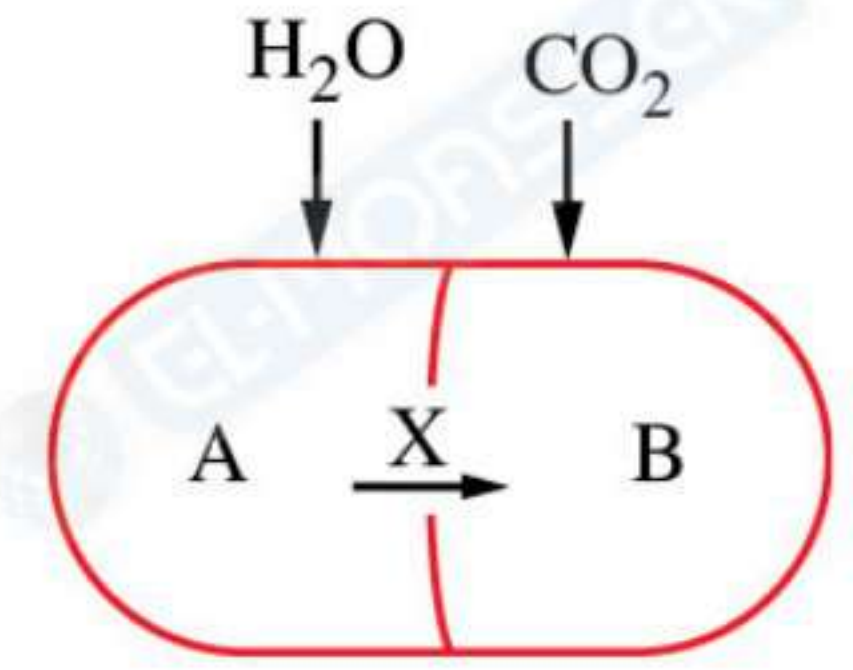
- (a) (1).
- (b) (2).
- (c) (1) and (2).
- (d) (3).



9 The living plant cells keep the internal concentration of ions which differs from the external concentration, what is the reason for continuing the concentration difference ?

- (a) Cells' walls.
- (b) Cells' vacuoles.
- (c) Cells' membranes.
- (d) Plastids.

10 From the opposite figure, that shows what happens inside the green plastid. What is the limiting factor in reaction (A) and (B) ?

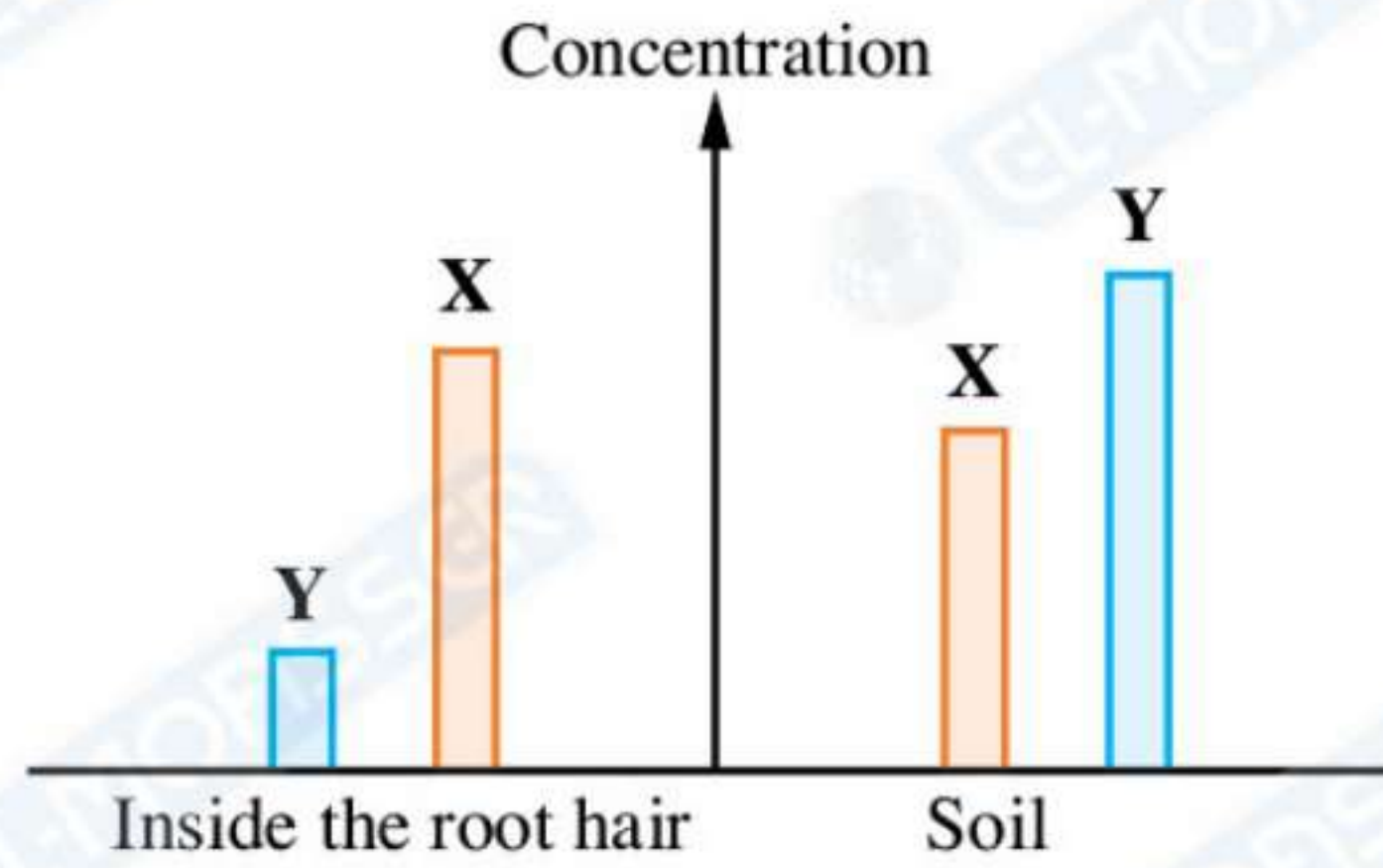


.....
.....

11 If you know that the saline solution which is given through a venous injection, its concentration is 0.9%, **deduce** what happens to the red blood corpuscles when the concentration of the saline solution is 1% or 0.5%. **Explain your answer.**

.....
.....

12 The following graph shows the concentration of ion (X) and ion (Y) for elements needed by a plant in the soil and inside the root hair of this plant :



What are the physical phenomena that lead to transferring (X) and (Y) respectively ?

.....
.....

Answers of Test

1

- 1 (c) 2 (c) 3 (a) 4 (c) 5 (a)
6 (c) 7 (c) 8 (b) 9 (c)

10 As "ptyalin" amylase enzyme works on the hydrolysis of starch into disaccharide (maltose), therefore it doesn't affect the mouth lining. While pepsin enzyme is secreted in an inactive form of pepsinogen from the stomach cells as it works on the hydrolysis of protein into chains of polypeptides, therefore if it is secreted in the active form, it will digest the cells lining the stomach which are made of protein.

- 11 • (X) : The colour doesn't change.
• (Y) : The colour changes.

12 (a) Stages (1) and (3) represent the darkness.
(b) Curve (B) represents (^{16}O).

Answers of Test

2

- 1 (a) 2 (c) 3 (b) 4 (b) 5 (d)
6 (a) 7 (d) 8 (b) 9 (c)

10 (A) : Light.
(B) : Temperature.

11 The RBCs will shrink when the saline concentration is 1%, as they lose water, while they burst when the saline concentration is 0.5% and this happens due to the transfer of water molecules by osmosis from the highly-concentrated medium (low salts concentration) to the lower concentrated medium (high salts concentration) to inside the cells, which makes them swell then burst, due to the absence of the cell wall in their structure.

- 12 • (X) : Active transport.
• (Y) : Diffusion.

Test 1



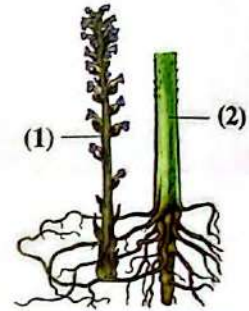
on the First Month

Choose the correct answer (1 : 9) :

- 1 What is the first compound that is resulted from the digestion of polysaccharides in human ?
(a) Glucose. (b) Maltose. (c) Sucrose. (d) Lactose.

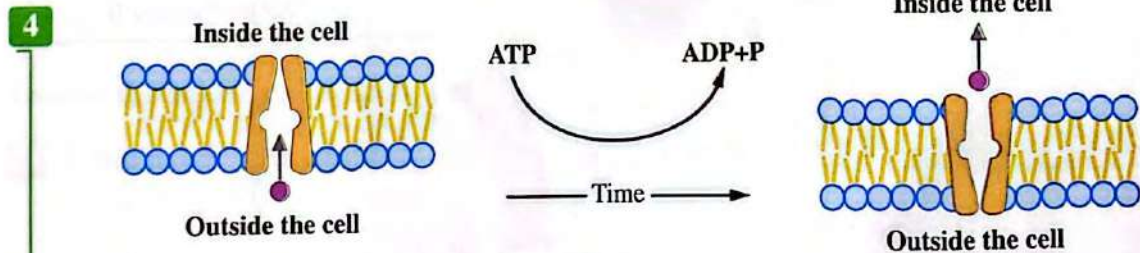
- 2 Which of the following can be concluded from the opposite figure ?

- (a) Plant (1) parasitises on plant (2).
(b) Plant (2) parasitises on plant (1).
(c) The two plants (1) and (2) depend on the mutualism principle.
(d) The two plants (1) and (2) are autotrophs.



- 3 The photosynthesis process takes place through two successive stages of biochemical reactions, which of the following belongs to the first stage ?

- (a) CO₂ fixation. (b) Oxidation of NADPH₂
(c) Formation of ADP compounds. (d) Activation of chlorophyll molecules.

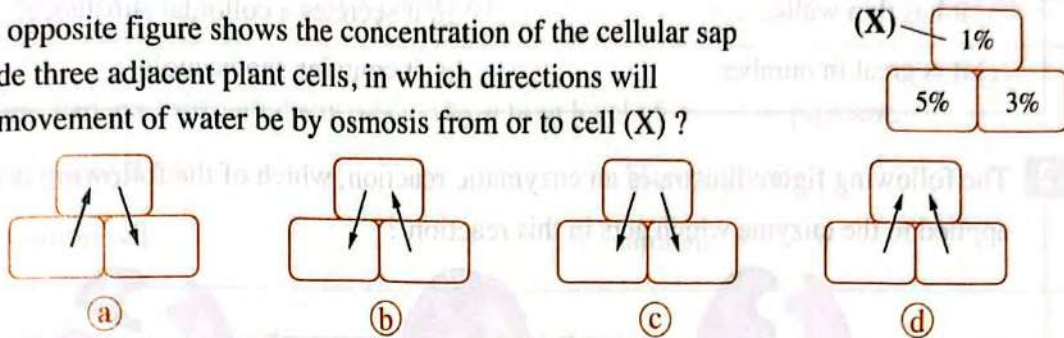


What does the previous process represent ?

- (a) Osmosis. (b) Active transport.
(c) Imbibition. (d) Selective permeability.
- 5 If the photosynthesis process is performed in the presence of chlorophyll C₅₅H₇₂O₅N₄Mg containing carbon isotope ¹⁴C and oxygen isotope ¹⁸O. So, oxygen and glucose in the reaction products contain respectively.
- (a) oxygen isotope and carbon isotope
(b) oxygen isotope and normal carbon
(c) normal oxygen and carbon isotope
(d) normal oxygen and normal carbon

- 6 The backflow of the gastric acid to the oesophagus is known as "Gastro-oesophageal reflux" and it occurs due to a defect in the sphincter muscle located between the
- (a) oesophagus and stomach. (b) stomach and small intestine.
 (c) duodenum and ileum. (d) ileum and large intestine.

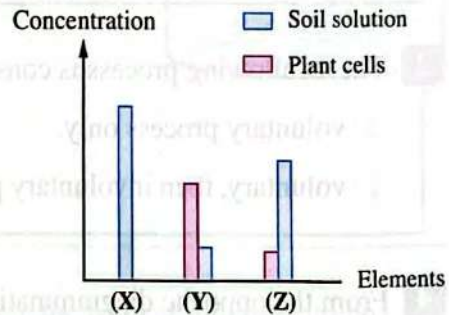
- 7 The opposite figure shows the concentration of the cellular sap inside three adjacent plant cells, in which directions will the movement of water be by osmosis from or to cell (X) ?



- 8 If you know that iodine solution is used for the detection of starch, so which leaf tissue is the most affected by it ?
- (a) Palisade tissue. (b) Spongy tissue. (c) Xylem. (d) Phloem.

- 9 In the opposite graph :
 What is the phenomenon on which the plant depends for the absorption of element (Z) ?

- (a) Osmosis. (b) Diffusion.
 (c) Active transport. (d) Imbibition.



Answer the following questions (10 : 12) :

- 10 **Explain :** the digestion process continues in oesophagus, although it doesn't secrete enzymes.

- 11 **What happens in case of :** the deposition of cutin on the external walls of the root hairs ?

- 12 Most of the water that is absorbed by the plant evaporates.

Deduce what is the benefit from the small amount of water that the plant keeps.

Test 2



on the First Month

Choose the correct answer (1 : 9) :

1 The root hair can penetrate among the soil particles, because

- (a) it has thin walls.
- (b) it secretes a colloidal substance.
- (c) it is great in number.
- (d) it contains sap vacuole.

2 The following figure illustrates an enzymatic reaction, which of the following is **not** applied to the enzyme which acts in this reaction ?



- (a) It is specific.
- (b) It has a reversible effect.
- (c) It is a catalyst.
- (d) It doesn't affect the reaction products.

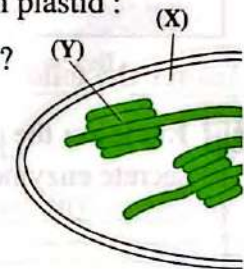
3 The swallowing process is considered a(an)

- (a) voluntary process only.
- (b) involuntary process only.
- (c) voluntary, then involuntary process.
- (d) involuntary, then voluntary process.

4 From the opposite diagrammatic figure which illustrates a part of green plastid :

Which of the following takes place in part (X) and part (Y) respectively ?

- (a) The formation of (3C) compound / Splitting of a water molecule.
- (b) Splitting of a water molecule / Formation of (3C) compound.
- (c) Oxidation of (6C) compound / Oxidation of PGAL compound.
- (d) Breaking down of ATP molecules / Oxidation of PGAL compound.

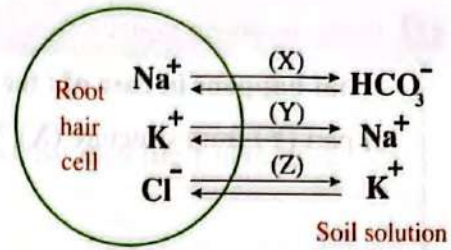


5 Which of the following enters in the structure of chlorophyll molecule besides carbon, hydrogen and oxygen ?

- (a) One atom of macro-nutrients.
- (b) One atom of micro-nutrients.
- (c) 5 atoms of macro-nutrients.
- (d) 5 atoms of micro-nutrients.

6 From the opposite figure, which of the following represent(s) the ion exchange between the root hair cells and the soil solution ?

- (a) (X).
- (b) (Y).
- (c) (X) and (Y).
- (d) (X) and (Z).

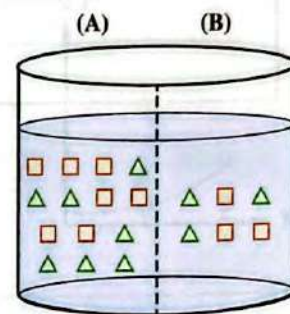


7 Mature banana fruits are distinguished by a high level of pigment.

- (a) chlorophyll (A)
- (b) chlorophyll (B)
- (c) xanthophyll
- (d) carotene

8 The opposite diagrammatic figure represents two solutions containing molecules \square and \triangle which are dissolved in water and separated by a semi-permeable membrane, so what is the phenomenon by which the molecules \square move from (A) to (B) ?

- (a) Osmosis.
- (b) Diffusion.
- (c) Imbibition.
- (d) Active transport.



9 Which of the following living organisms gets its food in the form of glucose, amino acids, water and vitamins ?

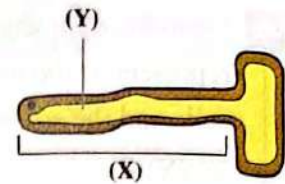
- (a) *Nitella* alga.
- (b) Cactus.
- (c) *Mulukhiya*.
- (d) *Orobanche*.

Answer the following questions (10 : 12) :

10 **Determine** : the reason for that the pancreatic amylase enzyme is secreted in an active form, while pepsin enzyme is secreted in an inactive form.

11 In the opposite figure :

What happens in case of : the absence of part (Y) from structure (X) ?



12 Explain : proteins that are produced by the plant cells to perform the required vital processes can't penetrate through their plasma membranes.

Answers of Test 1 on the 1st Month

- 1 (b) Maltose.
 - 2 (a) Plant (1) parasitises on plant (2).
 - 3 (d) Activation of chlorophyll molecules.
 - 4 (b) Active transport.
 - 5 (d) normal oxygen and normal carbon
 - 6 (a) oesophagus and stomach.
 - 7 (c)
 - 8 (a) Palisade tissue.
 - 9 (b) Diffusion.
-
- 10 As the effect of the salivary amylase enzyme (ptyalin) continues during the passage of food in the oesophagus, therefore the digestion of carbohydrates continues into maltose sugar.
-
- 11 The root hairs won't absorb water and mineral salts, because cutin substance is impermeable to water and mineral salts, leading to the plant death.
-
- 12 Water is considered the source of hydrogen that is required for the carbon dioxide fixation during dark reactions of photosynthesis process.

Answers of Test 2 on the 1st Month

- 1 (b) it secretes a colloidal substance.
 - 2 (b) It has a reversible effect.
 - 3 (c) voluntary, then involuntary process.
 - 4 (a) The formation of (3C) compound / Splitting of a water molecule.
 - 5 (c) 5 atoms of macro-nutrients.
 - 6 (b) (Y).
 - 7 (c) xanthophyll
 - 8 (b) Diffusion.
 - 9 (d) *Orobanche*.
-
- 10 As the pancreatic amylase digests carbohydrates, so that it is secreted in an active form which doesn't affect the pancreatic tissues that secrete

Worksheet 1

1- The food substances that are synthesized inside the cells of the green plant are characterized by being.....compounds.

- (a) High-energy and simple-structured
- (b) low-energy and simple-structured
- (c) High-energy and complex-structured
- (d) low-energy and complex-structured

2- Heterotrophs are characterized by all the following, except that they

- (a) Obtain their food in the form of organic compounds.
- (b) Obtain their food in the form of high-energy compounds.
- (c) Obtain their food in the form of simple-structured compounds.
- (d) Depend on other organisms to obtain their food.

3- If you know that Ascaris worms live and feed inside the human small intestine. So, these organisms are.....

- (A) Parasites.
- (b) Autotrophs.
- (c) Saprophytes.
- (d) Carnivores.

4- Which of the following organisms is different in the mode of nutrition?

- (a) Bread mould fungus.
- (b) Human.
- (c) Deer.
- (d) Lion.

5 -The following table shows the way of obtaining food for three living organisms:

Organism (X)	Takes simple raw materials from the environment and converts them into complex organic substances
Organism (Y)	Lives inside the alimentary canal of another organism and feeds on the digested food of this organism
Organism (Z)	Lives growing in the places that are rich in organic substances.

Which of the following choices can represent the organisms (X), (Y) and (Z) respectively?

- (a) Bilharzia worm/ Mushroom fungus / Corn plant.
- (b) Bilharzia worm / Corn plant / Mushroom fungus.
- (c) Corn plant / Bilharzia worm / Mushroom fungus.

(d) Con plant / Mushroom fungus / Bilharzia worm

1 "Cotton plant is autotrophic, while bread mold fungus is heterotrophic". Explain.

2 -What is the difference between: bean plant and Orobanche plant?

3-The root hair works as an osmotic instrument". Explain.

4-Active transport is arisen from the osmosis difference among the plant cells". How far this statement is correct? With explanation.

5-Give reason for: the cell consumes energy to absorb the ions against the concentration gradient.

Worksheet 2

1- If the concentration of K ions in the pond water is 1.2×10^3 ion/liter. So, The concentration of these ions in the cellular sap of Nitella alga is

(A) 2.1×10^3

(b) 0.12×10^3

(C) 0.8×10^3

(D) 1.2×10^3

2- In the opposite graph:

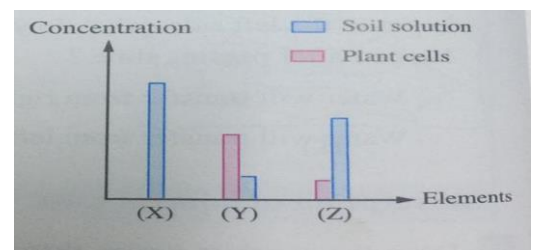
(1) Element (X) is not absorbed, because.....

(a) Its size is big.

(b) Its concentration is very high in the soil.

(c) The plant doesn't need it.

(d) This element from micro-nutrients



(2) The plant depends in the absorption of element (Z) on.....

(A) Imbibition.

(b) Active transport.

(c) Diffusion.

(d) Osmosis.

(3) The plant depends in the absorption of element (Y) on

(a) Diffusion.

(b) Osmosis.

(c) Imbibition.

(d) Active transport.

(4) If you know that in case of the absence of element (Y), photosynthesis process wouldn't occur. So, it is possible that element (Y) iselement.

- (a) Sulphur (b) Iron
(c) Nitrogen (D) Calcium

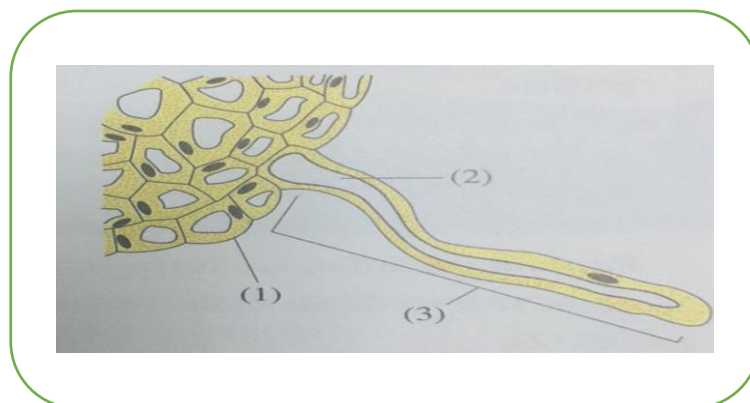
(5) The presence of element (Y) in a higher concentration than that of element (Z) in the plant cells confirms that

- (a) The plant needs element (Y) more than element (Z).
(b) The absorption of the two elements is occurred by diffusion.
(c) The first element is absorbed by diffusion and the second is absorbed by Active transport.
(d) The first element is absorbed by active transport and the second is absorbed by diffusion.

3- Which of the following elements is needed by the plant to absorb ions against the concentration gradient?

- (a) Chlorine, (b) Iron.
(c) Phosphorus (d) sulphur

1- The following figure illustrates an important structure in the plant root:



- (a) What is the change that may occur to structures no? (1) And (3) in case of The continuous root growth?
(b) What happens to the ions concentration in structure no? (2), on increasing the time between irrigation periods?
(c) Predict what happens in case of absence of structure no. (3) From the plant root.

2-The cell walls are characterized by the selective permeability phenomenon". How far this statement is correct? With explanation.

3-What is the relation between: osmosis phenomenon and osmotic pressure?

Worksheet 3

1- The stems of herbaceous plants are characterized by the presence of Tissues, Comparing with the stems of perennial trees.....

- (a) Collenchyma (b) Parenchyma
(c) Sclerenchyma (d) chlorenchyma

2 When exposing a plant to a sunny day, which of the following its releasing rate increases from the leaf?

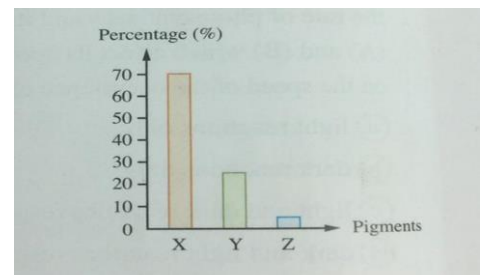
- (a) CO₂ (b) H₂
(c) N₂ (d) O₂

3-When exposing a plant to a long period of darkness, which of the following its releasing rate increases from the leaf?

- (a) CO₂ (b) N₂
(c) H₂O (d) O₂

4 -The opposite graph shows the percentages of pigments Percentage Inside plant plastids, which of them is the most abundant in apricot plant fruit?

- (A) Z
(b) Y
(c) X and Z
(d) Y and Z



5 The walls of the epidermal cells in a leaf of a plant are impermeable to water, due to the deposition of

- (a) Cutin. (b) Cellulose.
(c) Pectin. (d) Suberin

1-Give reason for: the stem of Corchorus olitorius "mulukhiyah" plant has the ability to make photosynthesis process.

2-What happens in case of: the absence of grana from the chloroplasts in a plant?

3-What is the relation between: the molecular structure of chlorophyll and the efficiency of photosynthesis process?

4-What happens in case of: the absence of phloem tissue from the plant leaf?

Worksheet 4

1- The light passes inside the plant leaf through the.....

- (A) layer that contains air chambers.
- (b) Layer that is rich in plastids.
- (c) Layer that is impermeable to water.
- (D) Layer that contains vascular tissues.

2- Which of the following symptoms appear on growing the plant in a soil poor in magnesium element?

- (a) Small leaves and many roots grow.
- (b) Large leaves and few roots grow.
- (c) The leaves are getting greener.
- (d) The leaves are getting more yellow in colour.

3 -If you know that the Medicago sativa plant is the host of the Cuscuta plant.

So, we conclude that

- (a)The Medicago sativa plant is devoid of chlorophyll and the Cuscuta plant contains real roots.
- (b) The Cuscuta plant is devoid of chlorophyll and the Medicago sativa plant contains real roots,
- (c) The Medicago sativa plant contains chlorophyll and the Cuscuta plant contains real roots.
- (d)The Medicago sativa plant is devoid of chlorophyll and the Cuscuta plant is devoid of roots.

4- The green plants can't survive in far depths of oceans, because.....

- (a) There is no suitable soil to fix the plant roots.
- (b) The concentration of oxygen is very high.
- (c) The light intensity is very low.
- (d) The concentration of carbon dioxide is very low.

5-In the photosynthesis process, the green plants use.....

- (a) Carbon dioxide and water to produce energy.
- (b) Oxygen and water to produce energy.
- (c) Energy to produce carbon dioxide and water.
- (d) Energy to produce oxygen, water and glucose.

6-What is the factor that doesn't affect the rate of photosynthesis in the plant?

- (a) The number of plastids.
- (b) The site of stomata.
- (c) The thickness of the mesophyll tissue.
- (d)The concentration of chlorophyll.

Worksheet 5

1-Mechanism of the enzyme action and buccal digestion the digestion process of food aims to its change into substances which can be.....

- (A) Absorbed (b) defecated.
(c) Excreted. (d) Swallowed

2- The first compound resulted from the digestion of carbohydrates in human is.....

- (a) Glucose. (b) Maltose.
(c) Lactose. (d) Sucrose.

3-On eating a piece of bread, which of the following enzymes will start its action first?

- (a) Trypsin. (b) Peptidase.
(c) Amylase. (d) Lipase.

4- In which part of the human alimentary canal does the enzyme work efficiently, if the optimum pH for this enzyme =7.5?

- (a) Mouth. (b) Small intestine.
(c) Stomach. (d) Large intestine.

5- The backflow of the gastric acid to the oesophagus is known as "Gastro-Oesophageal reflux" and it is occurred due to a defect in the muscle located Between the

- (a) Stomach and small intestine.
(b) Oesophagus and stomach.
(c) Ileum and large intestine.
(d) Duodenum and ileum.

6-The action of salivary amylase enzyme is stopped in the stomach, due to.....

- (a) The decrease in the enzyme amount.
(b) Changing all carbohydrates into maltose sugar.
(c) the difference in pH
(d) The difference in temperature.

7- Which of the following its digestion may be affected, if the liver is severely Damaged?

- (a) Carbohydrates. (b) Fats.
(c) Proteins. (d) Disaccharides.

The digestive enzymes are completely absent from the.....juice.

- (a) Pancreatic (b) bile
(c) Gastric (d) intestinal

8- The digestion of oil that is used in preparing meals starts in the

- (a) Mouth. (b) Oesophagus.
(c) Stomach (d) small intestine

9- Which of the following food substances its digestion starts and ends in The small intestine?

- (a) Rice. (b)Peanut butter.
(c)A piece of meat. (d) Cheese.

10- Bile juice plays an important role in accelerating the activity of..... enzyme.

- (a) Trypsin (b) amylase
(c) Maltase (d) lipase

11- The digestion of each of fats, proteins and carbohydrates together is affected by the occurrence of an injury in the

- (A) pancreas. (b) Liver.
(c) Large intestine (d) stomach.

12- All the following enzymes digest the same type of food substances, except

- (a) Lactase. (b) Sucrase.
(c) Lipase (d) maltase.

13- All the following enzymes complete the action of other enzymes or juices by breaking down their products into simpler molecules, except.....

- (a) Maltase. (b) Peptidases.
(c) Enterokinase. (d) Lipase.

14- Which of the following enzymes doesn't produce simpler and symmetrical molecules through its action?

- (a)Lactase. (b) Pancreatic amylase.
(c) Maltase. (d) Ptyalin

1-What happens in case of: the absence of enzymes from the digestive system?

2- What happens in case of: increasing the temperature of the medium where

The enzyme is present?

3- Explain: some enzymes work in two opposite directions.

4- What happens in case of: placing a piece of bread in the mouth and chewing it for three minutes?

5 -Give reason for: food passes easily in the digestive canal.

Worksheet 6

1- Glycogen is hydrolyzed completely by the action ofenzymes.

- (a) Amylase and sucrase
- (b) Amylase and lipase
- (c) Amylase and maltase
- (d) Amylase and lactase

2-Which of the following doesn't contain digestive enzymes for carbohydrates?

- (a) Pancreatic juice.
- (b) Saliva.
- (c) Intestinal juice.
- (d) Gastric juice.

3- Protein is completely digested in.....

- (A) Stomach and duodenum.
- (b) Mouth and stomach.
- (c) Duodenum and ileum.
- (d) Oesophagus and stomach.

4- Which of the following contains glands that secrete mucus not enzymes?

- (a) Stomach.
- (b) Pancreas.
- (c) Small intestine.
- (d) Oesophagus.

5-- Which of the following food elements aren't affected by the action of the digestive enzymes?

- (a) Fats and vitamins.
- (b) Proteins and minerals.
- (c) Minerals and vitamins.
- (d) Fats and proteins.

6- Which of the following has a role in the digestion process without secreting digestive enzymes?

- (a) Liver.
- (b) Pancreas.
- (c) Stomach.
- (d) Small intestine.

7-Which of the following food substances take a different way in its absorption?

- (a) Butter.
- (b) Egg white.
- (c) Bread
- (d) Honey.

8- Salmonella bacteria infect human, when eating contaminated food or water causing some Symptoms as diarrhea. Which part of the alimentary canal is most affected?

- (a) Intestine.
- (b) Oesophagus.
- (c) Pharynx.
- (d) Mouth.

9- If the lacteal vessels are blocked inside the villi, which of the following nutrients will not enter in the blood circulation with a normal rate?

- (a) Fructose. (b) Fats.
(c) Glucose. (d) Amino acids.

10-Which of the following substances its /their absorption route differs after its /their digestion in the digestive system...

- (a) Sugar. (b)Fats.
(c) Starch. (D) Proteins.

11- The process by which the absorbed food becomes a part of the body is called.....

- (a) Absorption. (b) Digestion.
(c) Catabolism. (d) Anabolism

1-What happens in case of: the removal of epiglottis from the pharynx?

2-Give reason for: human doesn't suffer from ulcers in the oesophagus, when eating dry foods.

3-Explain: hydrochloric acid plays an important role in the digestion process in stomach.

4-What happens if: a person took a high dosage of antacid drug?

5- What happens if: the gastric juice contains sodium bicarbonate?